REMARKS

The pending claims in this application are now numbered 1-6, 8 to 15, and 64 to 69. Claims 7 and 16 to 63 have been cancelled without prejudice or disclaimer and subject to the filing of one or more division applications directed to the subject matter thereof. Even though applicant disagrees with the examiner's contention that claims 16 to 63 are directed to a different invention than original claims 1 to 15, applicant accedes to the examiner's position and will base division application(s) on that accession.

Reconsideration of the patentability of all of the pending claims of the above referenced patent application is solicited.

The examiner's comments concerning the Abstract have been considered. The instant Abstract contains 123 words and is well within the specified requirements. It is therefore urged that the examiner withdraw the comments concerning the Abstract.

The examiner's comments concerning whether the specification contains antecedent basis for the subject matter of claims 13 to 15 have been considered and are respectfully traversed. The examiner's attention is directed to the paragraph bridging pages 5 and 6 of the specification where there is ample basis for the subject matter of claims 13 to 15. Further, and importantly, original claims are self supporting in terms of there being antecedent basis in the specification. Original claims are part of the original specification and are therefore self supporting. It is urged that the examiner withdraw the stated objection. Should the examiner wish to have the specific language of claims 13 to 15 incorporated into the specification, although applicant does not believe that it is necessary, applicant has no objection to the examiner doing this by his own amendment.

The examiner's extensive comments concerning the claims language have been carefully considered. The remaining pending claims of this application have been amended taking these comments into consideration. It is urged that the examiner consider the claims as amended and

accept their amended language. If objections still continue, applicant is prepared to consider any particular further amendments that the examiner will propose.

It is pointed out that the amendments being made herein to the claims are editorial in nature and in no way effect the patentability of the subject matter thereof. The instant claims are quite distinct from the state of the prior art and therefore should be allowed without any prosecution history estoppel being derived from these amendments. None of these amendments introduce any prohibited new matter as is clear from the fact that the examiner proposed either the language or the substance of the claim amendments. If the examiner found enough information in the specification to propose these amendments, it is clear that a person of ordinary skill in this art would also understand them to be incorporated in the instant patent application.

In the outstanding action, the examiner has rejected the patentability of claims 1 and 4 to 7 for failing to comply with 35 USC 102 as being directed to subject matter that is anticipated by the disclosure of the cited '595 reference. This rejection is respectfully traversed and it is urged that the examiner reconsider his position. Specifically, the examiner has posited that figure 6 of the reference discloses each and every material feature of the instant claims. This rejection is respectfully traversed.

Reference is made to figure 6 of the reference and the pertinent portions of the specification as they appear in columns 7 and 8. It is clear that the reference does show a dual walled pipe with ribs extending between the walls and male and female indented pipe ends. The examiner's attention is directed specifically to elements 41 and 42 of the reference. In the last paragraph of column 7, it is stated that first a complete shell of plastic is formed (the shell itself is unnumbered but is readily discerned from the view in figure 6), presumably with the rib members 43 in place, the foaming plastic is inserted between the inner and outer walls and is caused to foam to fill the area between the inner and outer walls. Note too that the tube or pipe shown in the reference is made in longitudinal halves and then assembled (see figure 7). New claim 65 calls for the claimed structure to be monolithic, that is without any joints. Other claims call for the instant pipe lengths to be seamless. The claims call for the sub-assembly of next

adjacent rib members and intercepted portion(s) of the inner and/or tubular members to make up hollow cells. Clearly, such a structure is not encompassed by the reference.

The reference has seams and it does not show hollow cells. But even without these features, it is clear that the instant claimed tubular pipe length, individually or in assemblies of multiple pipe lengths, is not the result of assembly two longitudinal half pipes as is done in the reference. In fact, it is clear that the reference has no enabling disclosure of a seamless dual walled pipe with compressed end sections and certainly has no disclosure of how to make such a product as is claimed herein.

Note should be taken of the fact that in the reference, the amount of material in the areas 41 and 42 is necessarily less than the amount of material in the areas that constitute the inner portions of the pipe length. To the contrary, the instant claimed pipe length has the same density in all parts of the individual pipe lengths. It should also be clear that after assembly of two pipe lengths through the claimed joint, the density of the joint will be substantially higher, approaching twice that of the remainder of the pipes. Note too that at least some of the next adjacent rib members together with the portion(s) of the inner and outer tubular members that are intercepted thereby form hollow cells. In the preferred embodiment of this invention, the claimed pipes are helically configured, which means that these hollow cells are also helically configured. There is no such disclosure in the reference.

While at first glance the pipe of the reference and the instant claimed pipe may seem to be quite similar, in depth evaluation of the pipe of the reference and the pipe of the instant invention shows that they are substantially different. The reference fails to provide support for a rejection based on an anticipation theory because the coupling portions of the pipe (which are the most important parts of the instant invention) are substantially different between the reference and the instant claimed invention. It is therefore urged that the examiner reconsider the disclosure of the reference and withdraw this rejection.

In the outstanding action, the examiner has rejected claims 9-13 as being anticipated by the disclosure of the cited '744 patent. The examiner's position necessarily relies on the

assertion that the reference discloses each and every material feature of the instant claims. This rejection too is respectfully traversed. The '744 reference discloses a tubular (actually a rectangular structure that is referred to as tubular) structure that has corrugations between an inner and an outer wall. The structure is configured into flanges at the ends thereof. However, it will be clear that these flanges are of a different structure than the end portions of the instant claims pipe and of different structures than joints of the claimed pipe assemblies. In the instant claimed structure, the inner and outer wall members and their encased rib members are compressed/collapsed to convert the end portion of a multiwall pipe having hollow space between the inner and outer tubular members into a single wall structure where the inner wall, the outer wall and the enclosed rib members are collectively compressed into a single wall structure. No such structure is disclosed by the reference.

At first glance, the instant claims appear to describe the same structure as is shown in the '744 reference. However, a closer examination shows that it is not the same structure at all. Starting from the portion of the tube of the reference that is intermediate its ends, the structure is first made up of a tube B composed of an outer member 3 and an inner corrugated member 2. The inner wall A is a single sheet that is attached to an unidentified intermediate element that, in turn, is attached to the inner side of the corrugated material. This element that is disposed between the corrugated material 2 and the sheet metal A is not separately identified nor given any alpha numeric indicia but it is there nonetheless.

At the base of the tube, these four (4) elements are collapsed so that there is no air between them. The sheet metal A appears to continue around the end of the tube and to be wrapped around the other three materials to form the flange 5. Note too that at the very end of the tube, the flange is composed of only 2 layers, the sheet metal A folded back upon itself. The male portion of the flange is completed by the sheet metal A completing its circuit around the base. At this point, it is clear that there are five (5) layers of material in the area closest to the corrugations and only two (2) layers of material at the end of the tube. In both areas, the outer diameter is greater than the outer diameter of the unmodified pipe/tube.

Closely evaluating the top of the tube as shown in the drawing, it will be seen that here too, the three (3) inner members of the assembly are collapsed and the sheet metal inner layer A is folded about itself at the end of the tube so as to form the flange 4. Here too, it is obvious that the outer diameter of the flange 4 is greater that the outer diameter of the intermediate portion of the tube. This difference in outer diameters is also readily apparent from looking at figure 1 where it is shown that the flange 5 has a greater outer diameter than the intermediate portions of the tube, and the flange 4 has an even greater outer diameter. Apparently, the outer diameter of the end of the flange 5, which is already greater than the outer diameter of the intermediate portions of the tube, is intended to then be inserted into the "VEE" opening of the flange 4 whereby the outer diameter of the flange 4 will be made even greater.

By way of contrast, in the instant claimed invention, the intent is to enable the coupled pipe lengths to have the same inside and outside diameters in the joint as it has in the intermediate portions of the pipe lengths. That is not possible with the structure of the '744 patent.

The next rejection asserted by the examiner would hold claims 2 and 3 unpatentably obvious over the combination of the disclosures of the '974 and '595 patents. The examiner agrees that the Baker patent does not disclose rib members that are slanted nor that they are helically configured. More importantly, the examiner tacitly admits that the reference does not disclose a structure wherein spaced apart tubular members are collapsed to form a single member having either an inside diameter that is the same as the inside diameter of the remainder of the pipe section (making a male coupling end), or an outside diameter that is the same as the outside diameter of the remainder of the pie section (making a female coupling end). The examiner then simply states that it would have been obvious for a person of ordinary skill in the art to make the ribs of Baker slanted and/or helically wound. That is easy to say but more difficult to achieve in the real world when the claimed article is made in a manner different from the manner disclosed in the instant specification.

As noted above, the Baker structure is assembled from two (2) longitudinal half pipes. The Baker structure is not seamless as some of the instant claims require. The Baker structure is

not monolithic as some of the claims require. The Baker structure does not have void cells as some of the claims require. The Baker reference does not disclose making the coupling elements required by the instant claims by compression nor does it disclose making the whole of the pipe lengths by extrusion.

It is also clear that the structure of the pipe lengths of the '974 patent are the same as at least some of the initial pipe length structures of the articles being claimed herein. The pipes of the '974 patent are made by extrusion in continuous lengths. These continuous lengths are cut the size making individual pipe lengths. It is these individual pipe lengths that are then subjected to end portion compression, as shown in the instant specification, to make the male and female coupling elements that are being claimed herein.

The examiner's rejection based upon a combination of references that include the '974 patent is respectfully traversed. True, the instant claimed products are the result of starting with, for example, the product of the '974 patent or the product disclosed in the Harry et al. (3,379,221) patent. However, modifying the structure of the '974 or the '221 patents to make the structure claimed herein is not at all obvious. The fact that the Harry and Herrington structures have hollow cell areas, at least at some time during their manufacture, is what permits the instant claimed coupling structure to be made. None of the other references applied by the examiner has such a structure and therefore, none of them enable the manufacture of the products being claimed herein.

It is therefore urged that the examiner reconsider all of the outstanding rejections, withdraw them and find all of the claims to be allowable.

Respectfully submitted:
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